Zur Physiologie des Geschlechtsapparates des Frosches. Von Prof. J. K. TARCHANOFF. Pflüger's Archiv, 1887, pp. 320–351.

Spallanzani and Goltz had found that the sexual embrace lasted from four to ten days till the last egg had appeared and been fructified, and that not only the strong fore legs and thumbs of the male, which were so firmly locked together that they could not be parted without lesion, but the whole nervous and muscular apparatus of embrace was in a state of strong and constant tonic excitation. Decapitation nor burning did not interrupt, nor burning nor abscission of limbs of the male prevent a renewal of the act. To answer the question, what is the impulse that proceeds from the female and what is the seat of excitation in the male, Goltz removed the ovaries, cord and brain and skin along the back of the female without lessening the ardor of the embrace by the male, which, however, refused a male sewed into the skin of a female, and concluded that every part of the female had a certain attraction. The various senses of the male were successively eliminated, and the conclusion reached that the attraction affected its every sensory apparatus. The reflex mechanism of the embrace was found to be located in the upper part of the cord, and to be excited from the skin between the fore legs, and after decapitation the finger of a man is clasped as tightly as the female with intact brain, but if this skin is removed the embrace no longer takes place. Castration did not affect the passion of the male nor even relax his embrace, but spots were found on the skin where the application of acids relaxed the embrace of the reflex frog. After repeating and confirming these experiments, Tarchanoff cut out the various internal organs of the male, including testes, one after another during the embrace without relaxing it. Only the emptying or excision of the seminal vesicle caused voluntary relaxation and lasting sexual indifference of the male. The same result followed section of the nerves connecting these vesicles with the central nervous system. Relaxation of the embrace by inhibition caused by painful reagents is far easier near its beginning than near its end, and with intact than with excised brain. Stimuli of the thalami or anterior portions of the corpora bigemina are especially effective in relaxing the embrace. This inhibition, the author inclines to think, is direct.

Ein gekreuzter Reflex beim Frosche. Von O. LANGENDORFF. Arch. f. Anat. u. Physiol., 1887, p. 141.

If a frog is held in the hand so that its hind legs hang down loosely, and the skin near the eye or tympanum be stroked with a blunt instrument, the leg on the opposite side is strongly flexed and abducted, and the web between the toes unfolded. The movement is tetanic, and continues some time after the stimulus is removed. This reflex, not provided for by Pflüger's laws, succeeds on nearly every frog, and even if the hemispheres and mid-brain are removed, but is inhibited by strong sensory stimulation on the same side. With electrical stimulation, when the kathode is applied to one and the anode to the other side of the head, the experiment succeeds also, but best of all with contra-lateral tetanizing induction currents. The crossing must take place beneath the medulla, but in what region of the cord it is not determined.